PVM-X300

4K Professional Video Monitor

TRIMASTER **4K** XAVC SxS

SONY
make.believe

4K
Cinema
Production

4K
Live
Production

4K
Business and
Industry Production

TRIMASTER
4K

* Produced by TV Globo with the F65

Full-HD production has widely impacted the broadcast and video production industry, yet now another wave is forming – the 4K content creation wave. Its rise is rapid, and it looks set to dramatically change the content creation industry, especially digital cinema.

Seeing this wave develop, you may be looking around for a versatile, dependable 4K video monitor. You can catch one right now – a right-size, easy-to-use monitor for every element of the production workflow including 4K cinema production (onset monitoring, dailies, and editing), 4K live production (camera control and program preview) and real-time 4K presentation.

Sony is proud to introduce the PVM-X300, 30-inch[1] true 4K (4096 x 2160 pixels) resolution LCD video monitor, ideal for 4K previewing in onset and editing applications.

The PVM-X300 monitor realizes true 4K resolution in a portable 30-inch size. It's packed with features such as a wide-viewing-angle IPS LCD panel, and versatile input interfaces including 3G/HD-SDI x 4, HDMI x 4, and DisplayPort[2] x 2 inputs. In addition, it delivers a user-friendly monitor control system, and supports an optional 4K SxS™ player, BKM-XP1.

Want to review immediately the 4K images from your camera without an external box, and would you like to free yourself from complicated wired connections? It's easy with an optional 4K SxS player. Combine the PVM-X300 4K video monitor with this player to achieve an integrated total workflow with Sony's PMW-F55 4K cameras.

Catch every advantage of the 4K wave not just in film and TV production, but also in a wide range of other applications. The PVM-X300 is also ideal in industrial design and visualization systems, computer graphics systems, and in museum and laboratory environments. Catch it now!

*1 767.5 mm viewing area, measured diagonally.
*2 Supported by V1.2.

It's Time for 4K

Don't Miss the Wave;

Catch the PVM-X300 4K Monitor

// True 4K (4096 x 2160) Resolution Panel

The PVM-X300 incorporates a 30-inch wide-viewing-angle IPS LCD panel delivering true 4K (4096 x 2160) resolution. This new professional video monitor also incorporates a RGB 10-bit panel with uniformity control, and can accurately display the industry-standard ITU-R BT.709 colour space.

With its convenient size, you can easily carry the PVM-X300 to an onset site to monitor 4K resolution motion pictures. You can also achieve 4K monitoring in postproduction by putting the PVM-X300 monitor on a desk in the edit suite. From acquisition to editing, you'll have a true 4K workflow all the way. Soon you'll be wondering how you ever managed without the PVM-X300 in your production and postproduction environments!

30"
4096 x 2160
IPS

QFHD
3840 x 2160

4K
4096 x 2160

FHD
1920 x 1080

2K
2048 x 1080

SD

4K Resolution image

Application images

Onset monitoring   OBVAN, Program/Preview   Edit suite
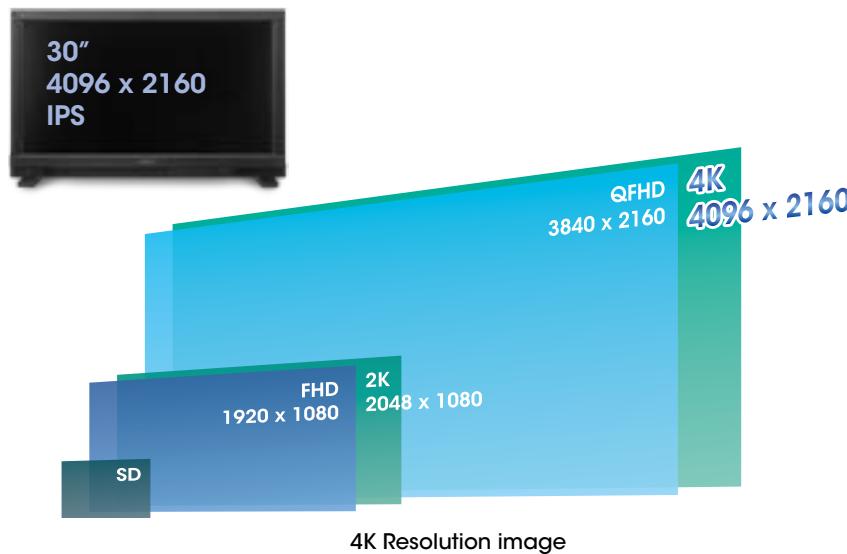
// Versatile Input Interfaces

The PVM-X300 4K monitor is equipped with variable interfaces including 3G/HD-SDI x 4 and HDMI x 4, allowing a direct connection with any type of 4K cinema camera and live product.

■ **3G/HD-SDI x 4 inputs**
This monitor supports 3G-SDI receiving a wide range of 3G-SDI signals up to 4096 x 2160, 50p/60p, 10-bit $Y/C_B/C_R$ 4:2:2.

■ **HDMI x 4 inputs**
This monitor supports 4096 x 2160/24p and 3840 x 2160/24p, 25p, 30p with one single HDMI cable. The PVM-X300 is also equipped with a unique capability – it can display 4096 x 2160/60p video signals with one single HDMI cable when connected to Sony's new PMW-F55 4K camera system.

■ **DisplayPort* x 2 inputs**

* Supported by V1.2.

Versatile Input Interfaces

3G-SDI x 4

HDMI x 1

DisplayPort x 2*

4K Graphics/
Workstation
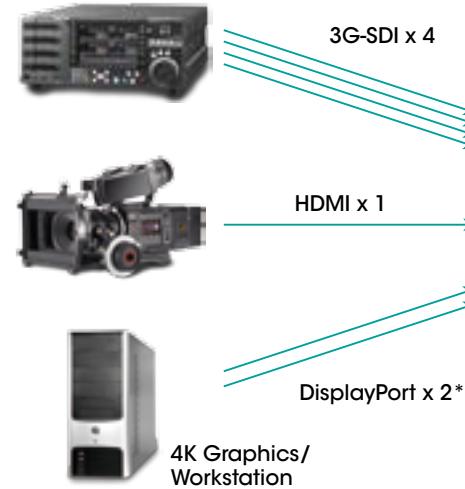
* Supported by version 1.2.
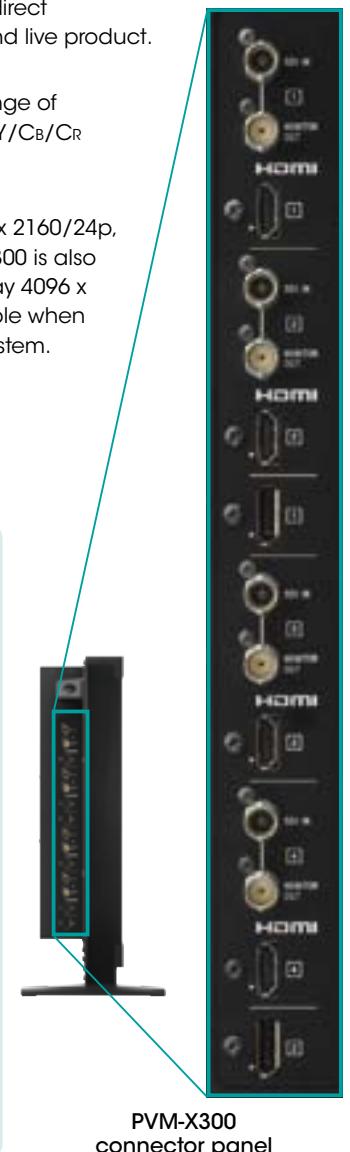
PVM-X300
connector panel

// 4K SxS Player (BKM-XP1) (option) XAVC SxS

You can combine the PVM-X300 with an optional 4K SxS player for easy playback of 4K content. Simply insert the newly developed SxS PRO+ high-speed memory media, which supports XAVC™ 4K and XAVC HD high-frame-rate recording, into the player to achieve immediate viewing of 4K camera images and 4K programs from a nonlinear editing system. This frees you from using an expensive, fragile HDD external player and complicated wired connections.

Thumbnails of each clip recorded on SxS PRO+ media are displayed on the monitor and can be controlled by the monitor's control panel.

Thumbnail clip operation

PMW-F55 Camera

XAVC 4K/HD

SxS Player (Option)

Nonlinear Editing System**

4K SxS player (option)

** Nonlinear editing alliance partners support the XAVC format.
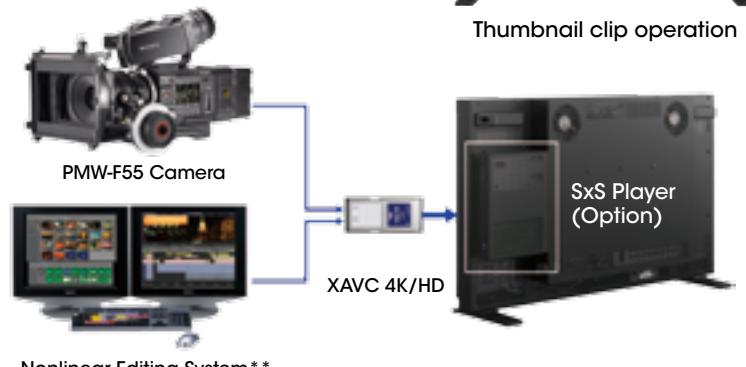
SxS PRO+ Media

This is a newly developed memory card for XAVC recording. XAVC is a scalable video format that supports HD, 2K, QFHD, and up to true 4K resolution. The XAVC 4K format provides exquisite 4K image quality in storage-efficient file sizes. XAVC is an open format, and is supported by industry-leading manufacturers.

// User-friendly Control Panel Design

With its user-friendly control panel design, the PVM-X300 allows seven functions to be allocated to assignable buttons. Button lights are dimmable and indicator lights are on/off switchable – this means you can operate the monitor easily in a dark environment.

Input select buttons

SDI
HDMI
PC (for future expansion)
OPTION

Function buttons

Default setting

F1 Brightness
F2 Contrast
F3 Chroma
F4 Backlight
F5 Native scan
F6 Volume
F7 View mode

Other assignable functions

• Marker
• Time code
• Audio level meter
• Focus assist
• Chroma up

Switch and indicator

Buttons and knob for

Menu operation
4K SxS player operation *
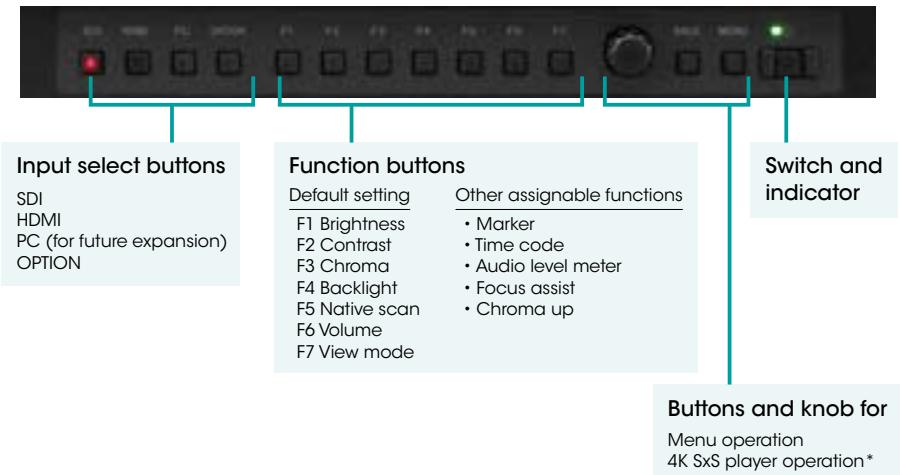
* When the optional BKM-XP1 4K SxS player is installed, it can be operated with the monitor's control panel. In addition, the 4K SxS player can also be operated with an optional USB mouse. Operations include Clip Selection, PLAY/PAUSE, REV/FWD, and PREV/NEXT.


Thumbnail display and mouse operation
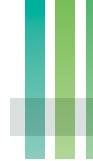
Display Mode

The PVM-X300 provides three basic display modes: 4K/QFHD, Quad View*, and 2K/HD Zoom.
4K/QFHD mode is used for displaying 4096 x 2160 or 3840 x 2160 signal inputs.
Quad View mode is used for displaying simultaneously four Full HD (1920 x 1080) signal inputs to confirm and compare four pictures at once on the same single screen.
2K/HD Zoom mode is for zooming and displaying 2048 x 1080 or 1920 x 1080 signal inputs scaled to the 4K screen.

* HDMI Quad link will be supported by V1.2.

4K/QFHD Mode   Quad view mode*
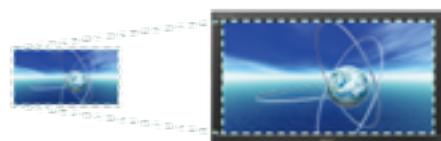
2K/HD Zoom Mode

Zoom Function*

Each of the five divided areas of the screen can be magnified by scaling to full-screen size.

* Supported by V1.2.

Camera Focus Function

The PVM-X300 can control the aperture level of a video signal, and display images on screen with sharpened edges to help camera focus operation.   Further to this, the sharpened edges can be displayed in user-selectable colours (white, red, green, blue, and yellow) for more precise focusing.

Focus in red   Focus in green

Marker Settings

This useful feature enables the PVM-X300 to display various markers including an aspect marker, safe area marker, and center marker.
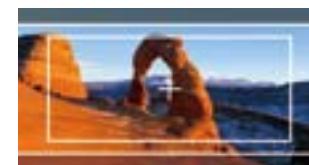
images are simulated

Gamma Selection

The PVM-X300 supports Gamma 2.4 as specified by the ITU-R BT.1886. In addition, Gamma 2.2, 2.6, and S-Log2 can be selected.

Robust and Lightweight Aluminium Body

A solid aluminium housing ensures durability, especially for outdoor usage.

Auto White Adjustment[1]

The PVM-X300 4K monitor employs a software-based colour temperature (white balance) calibration function, which is called "Monitor_AutoWhiteAdjustment".
Combined with a PC and commercially available colour analyzers[2], this function enables simple adjustment of the monitor's white balance.

[1] Supported with V1.2.
[2] Konica Minolta CA-210, CA-310, CS-200, DK-Technologies PM5639/06, X-Rite i1 (Eye-One) Pro/i1 Pro2, Photo Research PR-655/670, Klein K-10, and JETI specbos 1211. A connector is required for each colour analyzer.

Other Convenient Features

- Audio: Stereo speakers, line out, and stereo headphone jack
- VESA™ mounting (200 x 100 mm pitch)
- Timecode display
- SDI-embedded 8-ch audio level meter display (1 to 8 ch or 9 to 16 ch)
- Chroma Up

▟ Signal Format

HD-SDI / 3G-SDI

Signal System	Signal Format	
HD-SDI Single-link		
1920 x 1080/60i*¹, 50i, 30p*¹, 30PsF*¹, 25p, 25PsF, 24p*¹, 24PsF*¹	4:2:2 YCʙCʀ 10 bit	
1280 x 720/60p*¹, 50p, 30p*¹, 25p, 24p*¹		
2048 x 1080/30p*¹, 30PsF*¹, 25p, 25PsF, 24p*¹, 24PsF*¹		
Quad-Link HD-SDI*²		
3840 x 2160/30p*¹, 30PsF*¹, 25p, 25PsF, 24p*¹, 24PsF*¹	4:2:2 YCʙCʀ 10 bit	Square division
4096 x 2160/30p*¹, 30PsF*¹, 25p, 25PsF, 24p*¹, 24PsF*¹		
3G-SDI		
1920 x 1080/60p*¹, 50p	4:2:2 YCʙCʀ 10 bit	Level A / Level B-DL
1920 x 1080/60i*¹, 50i, 30PsF*¹, 25PsF, 24p*¹	4:4:4 RGB 10 / 12 bit	Level A / Level B-DL
1920 x 1080/30p*¹, 25p, 24PsF*¹	4:4:4 YCʙCʀ 10 / 12 bit	Level A*⁴ / Level B-DL
1280 x 720/60p*¹, 50p, 25p, 24p*¹	4:4:4 RGB 10 bit	Level A
1280 x 720/30p*¹	4:4:4 YCʙCʀ 10 bit	Level A*⁴
2048 x 1080/60p*¹, 50p, 48p*¹	4:2:2 YCʙCʀ 10 bit	Level A*⁴ / Level B-DL
2048 x 1080/30p*¹, 30PsF*¹, 25p, 25PsF, 24p*¹, 24PsF*¹	4:4:4 RGB 10 / 12 bit 4:4:4 YCʙCʀ 10 / 12 bit	Level A*⁴ / Level B-DL
Dual Link 3G-SDI*²		
1920 x 1080*³/60p*¹, 50p	4:4:4 RGB 10 / 12 bit	Level A / Level B-DL
2048 x 1080*³/60p*¹, 50p, 48p*¹	4:4:4 YCʙCʀ 10 / 12 bit	Level A*⁴ / Level B-DL
3840 x 2160/30p*¹, 25p, 24p*¹	4:2:2 YCʙCʀ 10 bit	2-sample interleave division*³ Level B-DS Square division
3840 x 2160/30PsF*¹, 25PsF, 24PsF*¹		Level B-DS Square division
4096 x 2160*³/30p*¹, 25p, 24p*¹	4:2:2 YCʙCʀ 10 bit	2-sample interleave division*³ Level B-DS Square division
4096 x 2160*³/30PsF*¹, 25PsF, 24PsF*¹		Level B-DS Square division
Quad Link 3G-SDI*²		
3840 x 2160/60p*¹, 50p	4:2:2 YCʙCʀ 10 bit	Level A / Level B-DL 2-sample interleave division*³ / Square division
3840 x 2160/30p*¹, 25p		Level A*⁴ / Level B-DL 2-sample interleave division*³ / Square division
3840 x 2160/30PsF*¹, 25PsF	4:4:4 RGB 10 / 12 bit	Level A / Level B-DL Square division
3840 x 2160/24p*¹	4:4:4 YCʙCʀ 10 / 12 bit	Level A / Level B-DL 2-sample interleave division*³ / Square division
3840 x 2160/24PsF*¹		Level A*⁴ / Level B-DL Square division
4096 x 2160/60p*¹, 50p, 48p*¹	4:2:2 YCʙCʀ 10 bit	Level A*⁴ / Level B-DL 2-sample interleave division*³ / Square division
4096 x 2160/30p*¹, 25p, 24p*¹	4:4:4 RGB 10 / 12 bit	Level A*⁴ / Level B-DL 2-sample interleave division*³ / Square division
4096 x 2160/30PsF*¹, 25PsF, 24PsF*¹	4:4:4 YCʙCʀ 10 / 12 bit	Level A*⁴ / Level B-DL Square division

HDMI

Signal System	Signal Format	
640 × 480p@60*¹		
720 × 480p@60*¹		
800 × 600p@60	4:4:4 RGB 12 / 10 / 8 bit	
1024 × 768p@60	4:4:4 YCʙCʀ 12 / 10 / 8 bit	
1280 × 720p@60*¹	4:2:2 YCʙCʀ 12 bit	
720 × 576p@50		
1280 × 720p@50		
1920 × 1080i@60*¹		
1920 × 1080i@50		
1920 × 1080p@60*¹	4:4:4 RGB 12 / 10 / 8 bit	
1920 × 1080p@50	4:4:4 YCʙCʀ 12 / 10 / 8 bit	
1920 × 1080p@30*¹	4:2:2 YCʙCʀ 12 bit	
1920 × 1080p@25		
1920 × 1080p@24*¹		
2048 × 1080p@60*¹		
2048 × 1080p@50		
2048 × 1080p@48*¹	4:4:4 RGB 12 / 10 / 8 bit	
2048 × 1080p@30*¹	4:4:4 YCʙCʀ 12 / 10 / 8 bit	
2048 × 1080p@25	4:2:2 YCʙCʀ 12 bit	
2048 × 1080p@24*¹		
3840 × 2160p@30*¹	4:4:4 RGB 8 bit	
3840 × 2160p@25	4:4:4 YCʙCʀ 8 bit	
3840 × 2160p@24*¹	4:2:2 YCʙCʀ 12 bit	
4096 × 2160p@30*¹	4:4:4 RGB 8 bit	
4096 × 2160p@25	4:4:4 YCʙCʀ 8 bit	
4096 × 2160p@24*¹	4:2:2 YCʙCʀ 12 bit	

*1 Also compatible with 1/1.001.
*2 The Square division signal is also supported for Quad Link 3G-SDI, Quad Link HD-SDI, or Dual Link 3G-SDI signal systems.
*3 Signal connectivity is currently being tested.
*4 Audio signal is not supported.

▟ Specifications

| Picture Performance	
Panel	α-Si TFT Active Matrix LCD
Picture size (diagonal)	767.5 mm 30.2 inches
Effective picture size (H x V)	678.9 x 358.0 mm 26 3/4 x 14 1/8 inches
Resolution (H x V)	4096 x 2160 pixels
Aspect	17:9
Panel drive	RGB 10-bit
Viewing angle (panel specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
Input	
SDI	BNC (x4)
HDMI	HDMI (x4) (HDCP correspondence)
Output	
SDI	BNC (x4) Output signal amplitude: 800 mVp-p ±10% Output impedance: 75 Ω unbalanced
Audio monitor	Stereo mini jack (x1)
Speaker (built-in)	1.0 W (stereo)
Headphone	Stereo mini jack (x1)
General	
Power requirements	AC 100 V to 240 V, 2.4 A to 1.2 A, 50/60 Hz
Power consumption	Approx. 200 W (max., without mounting the option) Approx. 230 W (max., with the option mounted)
Operating temperature	0°C to 35°C (32°F to 95°F) Recommended: 20°C to 30°C (68°F to 86°F)
Operating humidity	30% to 85% (no condensation)
Storage and transport temperature	-20°C to +60°C -4°F to +140°F
Storage and transport humidity	0% to 90%
Operating, storage, and transport pressure	700 hPa to 1060 hPa
Dimensions (W x H x D)*	754 x 457 x 120 mm 29 3/4 x 18 x 4 3/4 inches 754 x 475 x 205 mm (with monitor feet) 29 3/4 x 18 3/4 x 8 1/8 inches (with monitor feet)
Mass	17 kg 37 lb 8 oz
Supplied accessories	AC power cord (1), AC plug holder (1), Operating instructions (1), CD-ROM (1)

* The values for dimensions are approximate.

// Dimensions

Front

754 (29 3/4)
734 (29)
399 (15 3/4)
457 (18)
475 (18 3/4)
260.75 (15 3/8)
45 (1 13/16)
45 (1 13/16)
650 (25 5/8)
18 (23/32)

Side

120 (4 3/4)
54 (2 1/4)
60 (2 3/8)
205 (8 1/8)

Rear

215 (8 1/2)
236 (9 3/8)
200 (7 7/8)
6-M4, 10 (13/32)
100 (4)

Bottom

28 (1 1/8)
28 (1 1/8)
8-M3 Depth 5 (7/32)
17.5 (23/32)
28 (1 1/8)
650 (25 5/8)
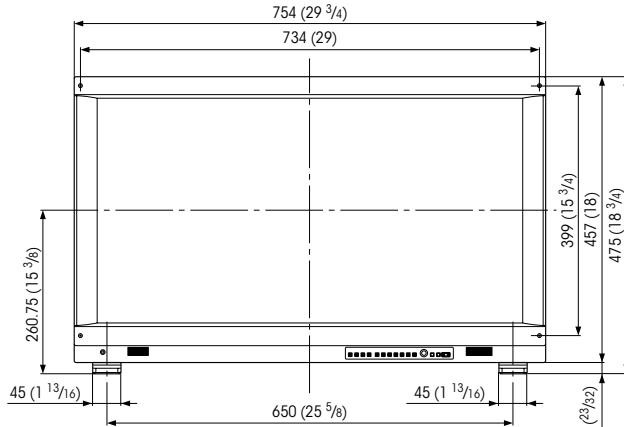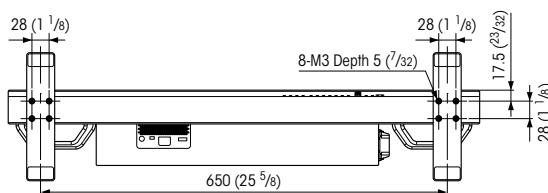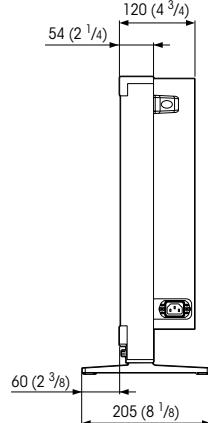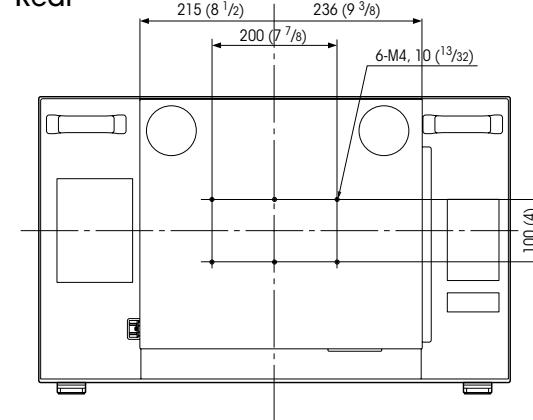
// Optional Accessory

BKM-XP1
4K SxS Player

The PVM-X300 is produced at Sony EMCS
Corporation Kosai Site, which has received
ISO 14001 Environmental Management
System certification.